

1. A sizing composition for glass fibers, comprising
at least one film-former;
at least one lubricant; and
at least one silane comprising an alkenyl group comprising a straight chain segment
5 of at least five carbon atoms, wherein at least one carbon-carbon double bond is terminal and
wherein the carbon atoms on the terminal double bond are unsubstituted.
2. The sizing composition of claim 1, wherein the at least one silane comprises at least
one of 5-hexenyltrimethoxysilane, 6-heptenyltrimethoxysilane, and
10 7-octenyltrimethoxysilane.
3. The sizing composition of claim 1, wherein the at least one silane comprises
5-hexenyltrimethoxysilane.
- 15 4. The sizing composition of claim 1, wherein the at least one silane comprises from
about 1 to about 25 percent by weight of the sizing composition on a total solids basis.
5. The sizing composition of claim 1, wherein the at least one silane comprises from
about 5 to about 15 percent by weight of the sizing composition on a total solids basis.
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6. The sizing composition of claim 1, wherein the at least one silane does not comprise
any of the following functional groups: primary amines, thiols, terminal epoxides,
hydroperoxides, activated epoxides, acetylenes, and vinyl ethers.

7. The sizing composition of claim 1, wherein the at least one film-former does not comprise any of the following functional groups: primary amines, thiols, terminal epoxides, hydroperoxides, activated epoxides, acetylenes, and vinyl ethers.

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8. The sizing composition of claim 1, wherein at the at least one film-former comprises at least one of epoxies, polyvinyl acetates, and polyesters.

9. The sizing composition of claim 1, wherein the at least one film-former comprises an epoxy having an epoxide equivalent molecular weight of 500 or less.

10. The sizing composition of claim 9, wherein a second film-former comprises a second epoxy having an epoxide equivalent molecular weight of 500 or more.

11. The sizing composition of claim 10, wherein the amount of the first epoxy in the sizing composition is greater than the amount of the second epoxy.

12. The sizing composition of claim 1, wherein the at least one film-former comprises from about 30 to about 80 percent by weight of the sizing composition on a total solids basis.

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13. The sizing composition of claim 1, wherein the at least one lubricant comprises at least one non-ionic lubricant.

14. The sizing composition of claim 14, wherein the at least one non-ionic lubricant does not comprise any of the following functional groups: primary amines, thiols, terminal epoxides, hydroperoxides, activated epoxides, acetylenes, and vinyl ethers.

5 15. The sizing composition of claim 14, wherein the at least one non-ionic lubricant comprises at least one ethoxylated fatty alcohol.

16. The sizing composition of claim 14, wherein the at least one non-ionic lubricant comprises up to about 55 percent by weight of the sizing composition on a total solids basis.

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17. The sizing composition of claim 1, wherein the at least one lubricant comprises at least one cationic lubricant.

18. The sizing composition of claim 17, wherein the concentration of the cationic
15 lubricant is sufficiently low to avoid poisoning a ring-opening metathesis polymerization catalyst.

19. The sizing composition of claim 17, wherein the at least one cationic lubricant comprises up to about 2 percent by weight of the sizing composition on a total solids basis.

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20. A sizing composition for glass fibers, comprising

at least one film-former in an amount ranging from about 40 weight percent to about 70 weight percent on a total solids basis;

at least one non-ionic lubricant in an amount ranging from about 20 weight percent to about 50 weight percent on a total solids basis;

at least cationic lubricant in an amount ranging up to about 2 weight percent on a total solids basis; and

at least one silane comprising an alkenyl group comprising a straight chain segment of at least five carbon atoms, wherein at least one carbon-carbon double bond is terminal and wherein the carbon atoms on the terminal double bond are unsubstituted, in an amount ranging from about 5 weight percent to about 15 weight percent on a total solids basis.

21. The sizing composition of claim 20, wherein the at least one silane comprises at least one of 5-hexenyltrimethoxysilane, 6-heptenyltrimethoxysilane, and

7-octenyltrimethoxysilane.

22. The sizing composition of claim 20, wherein the at least one silane comprises 5-hexenyltrimethoxysilane.

23. A fiber glass strand comprising at least one glass fiber at least partially coated with a sizing composition, the sizing composition comprising:

at least one film-former;

at least one lubricant; and

5 at least one silane comprising an alkenyl group comprising a straight chain segment of at least five carbon atoms, wherein at least one carbon-carbon double bond is terminal and wherein the carbon atoms on the terminal double bond are unsubstituted.

24. The fiber glass strand of claim 23, wherein the at least one silane comprises at least

10 one of 5-hexenyltrimethoxysilane, 6-heptenyltrimethoxysilane, and 7-octenyltrimethoxysilane.

25. The fiber glass strand of claim 23, wherein the at least one silane comprises 5-hexenyltrimethoxysilane.

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26. The fiber glass strand of claim 23, wherein the at least one silane does not comprise any of the following functional groups: primary amines, thiols, terminal epoxides, hydroperoxides, activated epoxides, acetylenes, and vinyl ethers.

20 27. The fiber glass strand of claim 23, wherein the at least one film-former does not comprise any of the following functional groups: primary amines, thiols, terminal epoxides, hydroperoxides, activated epoxides, acetylenes, and vinyl ethers.

28. The fiber glass strand of claim 23, wherein at the at least one film-former comprises at least one of epoxies, polyvinyl acetates, and polyesters.

29. The fiber glass strand of claim 23, wherein the at least one film-former comprises an epoxy having an epoxide equivalent molecular weight of 500 or less.

30. The fiber glass strand of claim 29, wherein a second film-former comprises a second epoxy having an epoxide equivalent molecular weight of 500 or more.

31. The fiber glass strand of claim 30, wherein the amount of the first epoxy in the sizing composition is greater than the amount of the second epoxy.

32. The fiber glass strand of claim 23, wherein the at least one lubricant comprises at least one non-ionic lubricant.

33. The fiber glass strand of claim 32, wherein the at least one non-ionic lubricant comprises at least one ethoxylated fatty alcohol.

34. The fiber glass strand of claim 23, wherein the at least one lubricant comprises at least one cationic lubricant.

35. The fiber glass strand of claim 34, wherein the at least one cationic lubricant comprises up to about 2 percent by weight of the sizing composition on a total solids basis.

36. A polyolefin composite, comprising:

(a) a plurality of glass fibers at least partially coated with a sizing composition,
the sizing composition comprising:

- 5 (i) at least one film-former;
- (ii) at least one lubricant; and
- (ii) at least one silane comprising an alkenyl group comprising a straight
chain segment of at least five carbon atoms, wherein at least one carbon-carbon double bond
is terminal and wherein the carbon atoms on the terminal double bond are unsubstituted; and
- 10 (b) a polyolefin prepared by polymerizing a cycloolefin using a ring-opening
metathesis polymerization catalyst.

37. The polyolefin composite of claim 36, wherein the polyolefin comprises polymers
formed by polymerizing dicyclopentadiene.

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38. The polyolefin composite of claim 36, wherein the at least one silane comprises at
least one of 5-hexenyltrimethoxysilane, 6-heptenyltrimethoxysilane, and
7-octenyltrimethoxysilane.

20 39. The polyolefin composite of claim 36, wherein the at least one silane comprises
5-hexenyltrimethoxysilane.

40. The polyolefin composite of claim 36, wherein the at least one silane does not comprise any of the following functional groups: primary amines, thiols, terminal epoxides, hydroperoxides, activated epoxides, acetylenes, and vinyl ethers.

5 41. The polyolefin composite of claim 36, wherein the at least one film-former does not comprise any of the following functional groups: primary amines, thiols, terminal epoxides, hydroperoxides, activated epoxides, acetylenes, and vinyl ethers.

42. The polyolefin composite of claim 36, wherein at the at least one film-former
10 comprises at least one of epoxies, polyvinyl acetates, and polyesters.

43. The polyolefin composite of claim 36, wherein the at least one film-former comprises an epoxy having an epoxide equivalent molecular weight of 500 or less.

15 44. The polyolefin composite of claim 43, wherein a second film-former comprises a second epoxy having an epoxide equivalent molecular weight of 500 or more.

45. The polyolefin composite of claim 44, wherein the amount of the first epoxy in the sizing composition is greater than the amount of the second epoxy.

20 46. The polyolefin composite of claim 36, wherein the at least one lubricant comprises at least one non-ionic lubricant.

47. The polyolefin composite of claim 46, wherein the at least one non-ionic lubricant comprises at least one ethoxylated fatty alcohol.

48. The polyolefin composite of claim 36, wherein the at least one lubricant comprises at
5 least one cationic lubricant.

49. The polyolefin composite of claim 48, wherein the at least one cationic lubricant comprises up to about 2 percent by weight of the sizing composition on a total solids basis.